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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/370,706	08/09/1999	JOHN MCGARRY	C99-018	8405

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EXAMINER	
STONE, JONATHAN D	
ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 09/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/370,706	MCGARRY, JOHN	
	Examiner	Art Unit	
	Jonathan D Stone	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 August 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This action is in response to the patent application *LARGE DATA SET STORAGE AND DISPLAY FOR ELECTRONIC SPREADSHEETS APPLIED TO MACHINE VISION*, as filed on 8/9/1999.

2. Independent claims 1-3 and dependent claims 4-8 are currently pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adler et al.**

5. **With respect to independent claim 1,** in the abstract Adler discloses an electronic spreadsheet having objects and formulas within the cells. Adler discloses (column 4, line 72) the inclusion of an object-oriented extensible software scripting language with which the user can (column 4, line 14) program new types of objects into the interpreter, define the operations that can be performed on these objects, and use these objects within the spreadsheet. Adler's invention includes (column 5, line 17) means for storing each object and each formula associated with each cell. In the abstract Adler describes the invention as associating a result, obtained during the evaluating procedure, with each cell associated with each formula operating on the

object. Adler does not disclose an object-oriented spreadsheet in which the objects provide storage and functions and a single value is returned by the functions. However, Adler's extensible scripting language provides the capability of creating function-specific objects. The present invention recites a single-method object providing storage and functions returning single values. The present invention's object could be one of Adler's objects with the above-specified parameters. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Adler's extensible scripting language in order to produce a comparable object and utilize it in the spreadsheet. This would have achieved equivalent results for the present invention's claimed single-method objects.

Adler describes (column 7, line 48) an invention that includes a means for displaying objects, and/or the results from the evaluation of a formula, in a plurality of formats selectable by the user based on what the user most desires. Adler does not disclose a data display buffer that displays its contents under a variably transparent spreadsheet grid. However, based on Adler's description it would have been obvious to one of ordinary skill in the art at the time of the invention to include an option resulting in the transparency of a portion or the entirety of the grid. Adler's invention calls for the display of images, graphs, and other visual objects. Such objects are commonly viewed in their own white space or in a proper viewing area. It would have been obvious to one of ordinary skill in the art at the time of the invention, especially if applying Adler's invention to an area with a concentration on image analysis, to create a proper viewing area by changing the opaqueness of the gridlines to enhance the viewability of the displayed data.

Adler further discloses an invention (column 5, line 48) having a visual presentation displayed to the user in response to signals corresponding to user input signals as well as other data control signals. This is equivalent to the present invention's claimed means for selectively displaying data content corresponding to a selected cell.

6. **With respect to independent claim 2,** the rejection of independent claim 1 above is incorporated herein. In addition, Adler provides for large data sets by defining (column 1, line 38) an object as being any data associated with a cell in the form of scalar values (integers, real numbers, strings, etc.) or more complex elements (video, images, etc.).

7. **With respect to independent claim 3,** the rejection of independent claims 1 and 2 are incorporated herein. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention that an image, machine vision or otherwise, constitutes a large data set.

8. **With respect to dependent claim 4,** Adler describes (column 7, line 48) an invention that includes a means for displaying objects, and/or the results from the evaluation of a formula, in a plurality of formats selectable by the user based on what the user most desires. The present invention recites a transparent electronic spreadsheet that is adjustably transparent. Based on Adler's description it would have been obvious to one of ordinary skill in the art at the time of the invention to include an option resulting in the transparency of a portion of or the entirety of the grid, especially when displaying images, graphs, etc. It would have also been obvious to one

of ordinary skill in the art at the time of the invention to add the option of adjustable transparency. This would allow the user to maintain a visualization of the grid, while gaining the advantage of a better viewing area for the visual object.

9. **With respect to dependent claim 5,** Adler discloses (column 3, line 66) an invention that permits the user to input data through the use of standard computer input and pointing devices (i.e., keyboard, mouse, trackball, joystick, touchscreen, etc.). Further, the preferred embodiment is described (column 9, line 44) as having a keyboard for data entry and a mouse for pointing. Adler points out (column 9, line 39) that any components of similar functionality are acceptable. The mouse, trackball, and touchscreen are explicitly listed, but a joystick provides the same functionality and is inherently included.

10. With respect to dependent claim 6, Adler discloses (column 3, line 66) an invention that permits the user to input data through the use of standard computer input and pointing devices (i.e., keyboard, mouse, trackball, joystick, touchscreen, etc.). Further, the preferred embodiment is described (column 9, line 44) as having a keyboard for data entry and a mouse for pointing.

11. **Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adler et al in view of Iwasaki et al (USPN 4992781 – filing date 2/19/1991).**

12. **With respect to dependent claim 7,** the rejection of claim 3 above is incorporated herein. Adler does not disclose the superposition of displayed images. However, Iwasaki discloses an image synthesizer that allows the viewing of multiple images, these images being displayed such that the individual source images appear superposed and transparent to each other. The present invention recites a method wherein an image includes a superposition of an object image, and a graphical analysis of the object image. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize Adler's extensible object-oriented scripting to add a graphical analysis function and to include Iwasaki's image superposition display to show the analysis with the image. This would have served to add analysis to the software and at the same time create an easily viewable area in which to place the analysis.

13. **Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adler et al in view of Iwasaki et al (USPN 4992781 – filing date 2/19/1991), and in futher view of *Mastering Excel 97 4th ed.* (Chester and Alden, © 1997).**

14. **With respect to dependent claim 8,** it was common in the art at the time of the invention to include different methods of graphical analysis on spreadsheets, such as histograms, pie charts, scatter plots, etc. Neither Adler nor Iwasaki discloses using histograms for histograms for graphical analysis of data. However, the *Mastering Excel 97 4th ed.* teaches (pp. 351-354) a chart wizard in which data is selected to automatically generate a histogram, or other equivalent graphical analysis. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include histograms in Adler's and Iwasaki's inventions as a

method for graphical analysis of data. Such a modification would have served to provide the user with a better analysis of the data in the spreadsheet and access to a graphical analysis of the data.

15. The prior art made of record and not relied upon is considered pertinent to present invention's disclosure.

Anderson et al	U.S. Patent No. 5416895	issued 5/16/1995	filed 4/8/1992
Salas et al	U.S. Patent No. 5317686	issued 5/31/1994	filed 3/10/1993

Conclusion

16. Any inquiry concerning this communication from the examiner should be directed at Jonathan Stone, who can be reached by telephone at (703) 305-7854. Normal contact times are M-F, 8-4:30.

17. Upon an unsuccessful attempt at contacting the examiner, the examiner's supervisor, Heather Herndon, may be reached at (703) 308-5186 M-Th, 8-5:00. The fax phone number for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for after final communications.

18. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

JDS
8/26/2002

HEATHER R. HERNDON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100